



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/682,430	08/31/2001	Kishore C. Acharya	GEMS8081.096	9467
27061	7590	02/27/2006	EXAMINER	
ZIOLKOWSKI PATENT SOLUTIONS GROUP, SC (GEMS)			JUNG, WILLIAM C	
14135 NORTH CEDARBURG ROAD			ART UNIT	
MEQUON, WI 53097			PAPER NUMBER	

3737

DATE MAILED: 02/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/682,430

Applicant(s)

ACHARYA, KISHORE C.

Examiner

William Jung

Art Unit

3737

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 December 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 7-36 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1 and 4-6 is/are allowed.
- 6) ☒ Claim(s) 7-36 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments, see remarks pages 9-10, filed December 14, 2005, with respect to claims 1 and 4-6 have been fully considered and are persuasive. The rejection of claims 1 and 4-6 in view of Jaszcak et al (US 6,629,469 B2) has been withdrawn.

2. Applicant's arguments filed December 14, 2005 have been fully considered but they are not persuasive.

After further consideration of the claims 7-33 in light of the applicant's remarks, examiner respectfully disagrees. In dependent claims 7, 16, and 25 merely recites that the fluid or fluidic chamber having plurality of protrusion. This limitation is met in Jaszcak et al as shown in figure 2, element 34. Although the simulation of the feature in 34 is for liver and lung, the simulation does indeed feature multiple protrusion of body organ. The fact that the disclosure is not limited to liver or lung inferentially be apply to other organs such as heart chamber simulation already disclosed by Jaszcak et al. However, Jaszcak et al do not disclose that cardiac phantom is designed to simulate two or more fluid chamber as claimed in claim 1. Therefore, the previous rejection of claims 7-33 is maintained as stated in previous rejection dated September 14, 2005 and repeated below.

3. Applicant's arguments with respect to claims 34-36 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

Art Unit: 3737

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 7-33 are rejected under 35 U.S.C. 102(e) as being anticipated by *Jaszczak et al* (US 6,629,469 B2).

Jaszczak et al anticipate all claimed features in claims 1-34.

Claims 7--33: Jaszczak et al disclose an apparatus and method where a dynamic cardiac phantom includes a hollow chamber made of pliable material to expand and contract based on an injection and discharge of fluid and at least one inlet connected to the hollow chamber at one end and having another end connectable to a fluid source to inject and discharge fluid into the hollow chamber in a manner to simulate cardiac motion. In addition, Jaszczak et al disclose a cardiac motion simulator for use with an imaging system, the simulator consisting a balloon having an inlet and a plurality of outlets, the inlet configured to at least receive fluid and tubes corresponding in number to the plurality of outlets, each tube having an inlet connected to an outlet of the balloon, wherein the plurality of tubes is configured to receive fluid exiting the plurality of balloon outlets wherein the balloon expands upon receipt of fluid and retracts upon discharge of fluid to mimic cardiac motion. The dynamic cardiac phantom described above also includes the hollow chamber has a shape to simulate that of a heart, wherein the hollow chamber has a plurality of protrusions extending therefrom, the plurality of protrusions having a shape to simulate a plurality of chambers of the heart, the fluid includes water, at least one inlet is further configured to inject and discharge fluid into the hollow chamber in a plurality of modes, the plurality of modes including a slow drain, a rapid drain, a change-over to supply, a rapid supply,

Art Unit: 3737

a slow supply, and a change-over to drain, the slow drain mode is variable velocity of speed (figures 1-8; col. 2, lines 9-60; col. 4, lines 5-41; col. 6, line 55 – col. 7, line 34).

Claims 16-24:

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 34-36 rejected under 35 U.S.C. 103(a) as being unpatentable over *Jaszczak et al.*

Jaszczak et al substantially disclose all claimed features in claims 34-36. However, Jaszczak et al do not specifically disclose the detailed structure of the CT system, but do disclose that the cardiac phantom is used with imaging system such as CT, MRI, and ultrasound. In addition, the claim limitation in claim 34 merely recites generic CT system where rotating gentry and radiation source and detector. Jaszczak et al anticipate the combination of CT and the cardiac phantom without explicit teaching of CT structure. Therefore, it would have been obvious to one having an ordinary skill in the art at the time the invention was made to apply any generic CT application with cardiac phantom as suggested by Jaszczak et al to achieve the claimed invention in claims 34-36.

Allowable Subject Matter

8. Claims 1 and 4-6 are allowed.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William Jung, Ph.D. whose telephone number is 571-272-4739. The examiner can normally be reached on Mon-Fri 8:30 AM to 5 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Casler can be reached on 571-272-4956. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

WJ

February 20, 2006

Brian L. Casler
BRIAN L. CASLER
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3700